

## Special Issue

# Application of Composite Gels in Food Processing and Engineering

### Message from the Guest Editors

Composite gels have emerged as powerful tools in the field of food processing and engineering, offering novel solutions to control texture, stability, and functionality in complex food systems. Unlike simple gels, composite gels are engineered with multi-component networks—often integrating proteins, polysaccharides, and other bio-based materials—that deliver enhanced structural and functional properties. These complex gels enable the development of foods with specific textural qualities and stability under various mechanisms, including phase separation, active filler particles, crossing linking networks, interfacial interactions along various processing conditions. As the food industry shifts toward plant-based, functional, and sustainable products, the role of composite gels in food engineering is significantly desired to manipulate and improve overall functionality. Composite gels present unique engineering challenges and opportunities, from the optimization of formulation and processing parameters to the scaling of production methods. We look forward to your contributions, which will shape the future of composite gel applications in food processing and engineering.

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### Guest Editors

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### Deadline for manuscript submissions

31 July 2026



## Gels

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## About the Journal

### Message from the Editorial Board

*Gels* (ISSN 2310-2861) is recently established international, open access journal on physical and chemical gel-based materials. The journal aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. General topics include but not limited to synthesis, characterization and applications of new organogels, hydrogels and ionic gels made either from low molecular weight compounds or polymers, composite and hybrid materials where a metal is by some means incorporated into the gel network, and computational studies of these materials in order to provide a better understanding of gelation mechanism. We cordially invite you to consider publishing with us and contribute with your own grain of sand to the advance in this fascinating field.

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### Editors-in-Chief

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